

REMARKS

Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

By this Amendment, claims 1, 11, and 14-15 are amended to merely clarify the scope of the recited subject matter. Ample support for the amendments can be found in the as-filed specification. Hence, Applicant submits that no new matter has been added. Claims 1-15 are pending, of which claims 1 and 11 are pending.

In the Office Action dated December 29, 2006, the Examiner has rejected claims 1-15 under 35 U.S.C. 103(a), as allegedly being unpatentable over Stanke et al. (U.S. Patent No. 6,690,473) in view of Price et al. (U.S. Patent No. 5,790,710).

Applicant respectfully traverses the prior art rejections, under 35 U.S.C. 103(a), for the reasons presented below.

Prior art rejections:

As indicated above, independent claim 1, positively recites, *inter alia*, ***a photodetector being configured to output signals based on positions of spots that correspond to the reflected multi-spot beams incident thereon, and a focusing-state calculator that calculates a focusing state of the microscope based on output signals from the photodetector.***

To establish a prima facie case of obviousness three basic criteria must be met. First there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Stanke et al. discloses an instrument for measuring and evaluating a surface profile of a workpiece. An optical profiler of Stanke et al. utilizes optical interference arising from retro-reflections caused by optical non-uniformity. However, Stanke et al. is silent with respect to a focus detecting device for a microscope. Moreover, figure 6 of Stanke et al. merely depicts a single image

beam 100 incident on the camera 98. Stanke et al. fails to provide any teaching or suggestion, whatsoever, of *reflected multi-spot beams being incident on a photodetector, wherein the photodetector is configured to output signals based on positions of spots that correspond to the reflected multi-spot beams*, as required by independent claim 1. Applicant also agrees with the examiner that Stanke et al. is silent with regard to *a focusing-state calculator that calculates a focusing state of the microscope based on output signals from the photodetector*, also required by independent claim 1.

Price et al. discloses an autofocus system applied to a microscope apparatus. According to Price et al., focusing is performed by: capturing a plurality of pictures upon gradually changing focal position, evaluating function values after a filtering process, and adjusting focus. Changing of the focal position is performed by vertical movement of a stage and a piezoelectric positioner that displaces the objective lens itself. The apparatus of Price et al., performs focusing by searching and finding a position where sharpness (contrast) is minimized. In contrast, focus detection in the present invention is performed by irradiating a sample with multi-spot beams (which are prepared for focus detection), and detecting positions of spots that correspond to the multi-spot beams reflected from the sample and which are incident on the photodetector. Moreover, Price et al. is directed to a reflecting fluorescence microscope apparatus which merely uses ultraviolet illumination from a mercury arc lamp. Price et al. fails to provide any teaching or suggestion, whatsoever, of **multi-spot beams**. Furthermore, Price et al. fails to provide any teaching or suggestion, of *reflected multi-spot beams being incident on a photodetector, wherein the photodetector is configured to output signals based on positions of spots that correspond to the reflected multi-spot beams*, as required by independent claim 1.

Also, Price et al. merely discloses that host processor or the image processor under control of the host processor, can perform a transformation of the image and obtain a value that represents a degree of focus (column 7, line 65-column 8, line 3 of Price et al.). However, Price et al. fails to provide any teaching or suggestion, whatsoever, of *a focusing-state calculator that calculates a focusing state of the microscope based on output signals from the photodetector*, as required by independent claim 1.

Hence, since Stanke et al. and Price et al., whether taken alone or in reasonable combination, fail to teach or suggest at least the above-mentioned features of independent claim 1, independent

claim 1 is clearly patentable. And, because claims 3-10 depend from claim 1, claims 3-10 are patentable at least by virtue of dependency as well as for their additional recitations. Accordingly, immediate withdrawal of the prior art rejections of claims 1, and 3-10 is respectfully requested.

Applicant's independent claim 11 recites similar patentable features as claim 1, hence claim 11 is also patentable for the same reasons given relative to claim 1. And, because claims 12-15 depend from claim 11, claims 12-15 are patentable at least by virtue of dependency as well as for their additional recitations. Accordingly, immediate withdrawal of the prior art rejections of claims 11-15 is respectfully requested.

Applicant further contends that since Stanke et al. is related to the field of integrated surface metrology and Price et al. is related to microscope autofocus, which means that both these references have a different purpose and operate on disparate principles, it is meaningless to combine these references to reject Applicant's pending claims.

According to M.P.E.P 2141(a), in order to rely on a reference as a basis of rejection, the reference must either be in the field of Applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the invention is concerned. Applicant submits that Stanke et al. is neither in the field of Applicant's endeavor, nor is it reasonably pertinent to the particular problem with which the invention is concerned. Hence, Applicant respectfully submits that Stanke et al. cannot be relied on by the Examiner to reject Applicant's pending claims.

Conclusion:

In view of the above amendments and remarks, Applicants respectfully submit that all the claims are allowable and that the entire application is in condition for allowance. Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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